TESTIMONY OF
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BEFORE THE
SUBCOMMITTEE ON FISHERIES CONSERVATION, WILDLIFE
AND OCEANS

ON BEHALF OF THE
ORANGE BEACH FISHING ASSOCIATION,
PANAMA CITY BOATMEN'S ASSOCIATION,
AND DESTIN CHARTER BOAT ASSOCIATION

JUNE 16, 2004

Mr. Chairman, the Orange Beach Fishing Association, Panama City Boatmen's Association, and Destin Charter Boat Association appreciate the opportunity to testify regarding data collection programs administered by the National Marine Fisheries Service ("NMFS"). The Orange Beach Fishing Association ("OBFA") is an association of the owners, operators, and crew of charter boats, headboats, and guide boats; private recreational fishermen; and supporting businesses in Alabama. OBFA's members fish principally for red snapper. Although Alabama has the shortest coastline of all the Gulf States, OBFA's 2,600 members harvest 40% of the annual 4.47 million pound Gulf of Mexico recreational red snapper quota. OBFA members also catch vermillion snapper, yellowfin tuna, billfish, and king mackerel.

Like OBFA, the Panama City Boatmen's Association and the Destin Charter Boat Association represent the owners and operators of charter boats, individual anglers and support businesses. The members of these associations fish for red snapper, king mackerel, greater amberjack, vermillion snapper, grouper, yellowfin tuna, and billfish. Together, these three associations carry approximately 492,000 anglers annually and account for more than $1.2 billion in total spending each year.

Recreational fishermen have an enormous impact on the economies of the five Gulf states. In 2002, the 3,321 recreational charter boats operating in state and federal waters in the Gulf of Mexico carried approximately 2.5 million anglers. A survey by the U.S. Fish and Wildlife Service and the Census Bureau showed the overall economic impact of the saltwater recreational fishery in the Gulf of Mexico in 2001 was $8.1 billion. To place that number in context, the overall economic impact of the commercial fishery was estimated at $853 million.

The principal offshore Exclusive Economic Zone ("EEZ") recreational fishery in the northern Gulf of Mexico is the red snapper fishery. Over 70% of the Gulf of Mexico red snapper recreational harvest is taken by the for-hire recreational charter boat sector.

Because OBFA, Panama City Boatmen's Association, and Destin Charter Boat Association represent recreational fishermen, our testimony will address the collection and use of recreational fishery data with an emphasis on the red snapper fishery. However, before proceeding it is important to recognize that the adequacy of any data collection system must be assessed based on the purpose for which the data are collected. In that regard, Congress has mandated that the red snapper fishery be managed by an annual quota. Congress imposed this quota system in 1996, jettisoning the old bag and size limits. Curiously, all of the Gulf states still manage their recreational fisheries using bag and size limits. Thus, beginning in 1996, NMFS needed a recreational data collection system that could manage the quota by determining when it had been taken. NMFS elected to use the Marine Recreational Fishery Statistical Survey ("MRFSS"). Unfortunately, MRFSS was designed and created in 1979 as a data collection system to monitor long-term trends in a fishery. It was not designed as a real time quota management system.

The MRFSS web site admits "It is not our mission to provide in-season quota monitoring." In a serious condemnation of a data collection system being used for real time quota management, a peer reviewed study of MRFSS conducted in 1997 for NMFS' Office of Science and Technology concluded: "The precision of MRFSS estimates of catch and effort . . . are thought to be poor. . . ." In September 1998, NMFS officials openly admitted to the Gulf of Mexico Regional Fishery Management Council ("Gulf Council") that MRFSS was not designed to manage any fishery using quotas. In December 2003, the NMFS Administrator told the Marine Fisheries Advisory Committee ("MAFAC") that using MRFSS for quota management is well beyond what MRFSS was designed to do. At the Gulf Council's January 2004 meeting, the NMFS Regional Director

affirmed MRFSS was not designed, and is not suitable, for quota management. Nevertheless, MRFSS is the data collection system being used to manage recreational fishery quotas, including the all important red snapper recreational quota.

From its inception in 1979, MRFSS has been plagued with problems when managers have tried to use it for real time quota management. Texas abandoned the entire MRFSS system in 1986. South Carolina and Maryland use only portions of the MRFSS data. California, Washington and Oregon have dropped MRFSS as a fishery management tool. Alaska rejected MRFSS from the outset and has never participated.

Under MRFSS, data is gathered using thousands of telephone surveys and dockside interviews. In some years, the nationwide number of telephone surveys can approximate 250,000 and the nationwide number of dockside interviews can reach 75,000. However, the MRFSS website correctly admits this is “a relatively small number of interviews” given that there are 15-17 million saltwater recreational anglers in the United States. This small sample size is complicated by the fact that no catch information is collected in the 250,000 telephone interviews. Rather, those interviews collect trip frequency and socio-economic data.

Further compounding the small sample size is the quality of the interviews. The telephone interviews ask respondents to remember events that may have happened months ago. Moreover, these interviews are not extensive. In 2001, NMFS estimated the time per response for the MRFSS telephone surveys and dockside interviews. 66 Fed. Reg. 27068 (May 10, 2001). NMFS stated the telephone survey consumed only 7 minutes and the dockside interview was estimated at 7 minutes for boat operators and a mere 4.5 minutes for the fishermen --- hardly a significant amount of time for a data collection system that has enormous implications for recreational fishermen.

The MRFSS web site admits (1) its estimates of fishing effort are “subject to wide variability,” (2) telephone surveys can produce “unrealistically high” estimates of overall fishing effort, (3) estimating head boat and charter boat effort using MRFSS “is difficult,” (4) the MRFSS system for the “[i]mputation of missing effort data increases fishing effort estimates,” and (5) including unusually large catches by a few anglers skews catch estimates by overestimating fishing effort and harvest. While NMFS claims to be aware of these problems and attempts to adjust for them, the facts are that MRFSS was never intended to be used as a real time quota management tool and is fatally flawed. Indeed, as noted above, numerous states have abandoned MRFSS.

MRFSS uses a complex formula to estimate harvest levels based on short interviews with a tiny fraction of recreational fishermen. Where data is lacking, that formula “imputes” numbers. The formula also contains “adjustments” for the known biases in the MRFSS system. The results of this complex formula and system of statistical assumptions and adjustments are often surprising and can have a devastating effect when used to decide when a quota has been reached.

In September 2002, major tropical storms closed the red snapper recreational fishery for all but seven days over a two month period. But the MRFSS formula revealed, to the surprise of every fisherman, that fishing effort had actually increased from prior years. MRFSS even estimated that fishing effort increased in November and December of 2000, 2001, and 2002 when the fishery was closed.

In 2002, a one day fishing trip off Mississippi by ten private recreational fishermen was used by MRFSS to show that in just two days Mississippi recreational fishermen took 7% of the entire annual Gulf-wide recreational quota. To do this, the MRFSS formulas assumed all recreational anglers in Mississippi harvested ten fish. The legal limit was four.

The MRFSS telephone survey often results in a significant overestimate of fishing effort and harvest. One year, a charter boat owner who took his boat out daily was classified as an average private recreational angler. Fishing effort data was based on an extrapolation from that sample and the recreational fishery was closed. After the closure, the data were corrected, but the damage to the fishermen was already done. One community alone suffered an estimated $14 million loss.

In 2002, based on one red snapper being landed at one west Florida pier, MRFSS estimated that 1,003 fish were landed from shore in the Florida Panhandle. However, catching red snapper from a pier is an extremely rare event. The recreational red snapper fishery is an offshore fishery. Nevertheless, the MRFSS formulas used this one fish to assume that 1003 had been caught.

MRFSS’ defenders assert MRFSS has a small margin of error. Indeed, NMFS claims MRFSS has proportional standard error (“PSE”) of only 4.3%. That may sound good, but PSE is only a measure of whether the model operated as it was supposed to when the data was inputted. It does not mean that the data MRFSS produces for inputting into the model is correct. It also does not mean the model is producing usable or accurate data. Indeed, as noted above, a peer review of the data produced by MRFSS model found that “the precision” of the data is “poor.” For example, MRFSS estimated the number of red snapper angler trips in the Gulf of Mexico in 1999 was, with 95% confidence, between 275,000 and 440,000.

However, a range with a spread of 165,000 is not a usable number for managing quotas because it is too large. Nevertheless, NMFS can claim a 4.3% PSE because the upper and lower ends of the range produced by the model, based on the data inputted, are within 4.3% of being accurate. But that doesn't help when the "accurate" range is too large to be useful. Curiously, even though NMFS claimed a small PSE in 1999, if one looks at the MRFSS website today, NMFS has now moved the upper range to 530,000 suggesting serious errors in the original computation.

Compounding the accuracy issue is the fact that the number of angler trips, i.e., fishing effort, is measured through telephone surveys of the general populace in which the general public is to recall fishing activity several months old, which probably accounts for the wide interval in the estimates. However, in 2000, NMFS began using the For Hire Survey of charter boats. That survey is based on interviews with charter boat operators and passengers which are contemporaneous with the activity. The contemporaneous For Hire Survey showed that MRFSS was overestimating angler trips and, therefore, recreational harvest levels by a little more than one-third. In other words, the actual harvest was one-third less than MRFSS predicted.

Mr. Chairman, as we look to the future, the first question is whether MRFSS can be fixed. But that is a little like asking why we can't put the proverbial square peg into the round hole. MRFSS was designed to monitor long-term trends, not to count the numbers or weight of fish caught for real time quota management. Everyone admits MRFSS is ill suited for real time quota management. Yet, in the 25 years since MRFSS was created, no one has come up with a way to make it work for quota management and many states have abandoned it. It is time to recognize that MRFSS is not the right tool if the objective is to manage quotas.

We believe the right tool is a combination of data collection methods. We support a logbook program for all recreational vessels. We also support a recreational fishery observer program with three caveats. First, boat owners need indemnification from liability associated with an observer. Second, the random selection of boats for observation must take into account the fact that on a given day some boats will have a full complement of paying guests. An observer should not "bump" a customer who may have made his or her reservation weeks or months in advance. However, not all boats are full every day, and which boats are full varies each day, so random selection is possible, and this must be designed into the observer placement system. Third, the observer must be exempt from Coast Guard regulations and not be classified as a passenger so that the vessel can have the maximum legal number of paying customers on board. Finally, we support a saltwater recreational license. Such a license should be administered by the states in a way that it covers state and federal waters. Only if a state does not implement such a program would a separate federal license be required for the EEZ. Revenue from the licenses could be used to improve fisheries management, including data collection, for example, by funding a logbook and observer program.

Mr. Chairman, in 1996 when this Committee amended the Magnuson-Stevens Fishery Conservation and Management Act to replace the bag and size limit system for red snapper with a quota management system, no one told you there was no data collection system in place to do the job. NMFS grabbed the only thing it had --- MRFSS. But MRFSS never was, and never will be, a real time quota management data system. Not only do we recommend that Congress return to the bag and size limit management system, the system still used by every Gulf state in their waters, but we also recommend that Congress institute a mandatory logbook system, an observer system with the caveats noted above, and a saltwater recreational license with the states as the lead entity.
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